

## REMARKS

Applicants submit the present *Amendment After Final* in response to the Final Office Action ("Final Action") mailed December 29, 2006. Applicants appreciate the withdrawal of the rejections under 35 U.S.C. § 112, as well as the withdrawal of one of the grounds of rejection under 35 U.S.C. § 101 identified with respect to Claim 9. Claims 9 and 15 continue to stand rejected under 35 U.S.C. § 101, and all of the pending claims stand rejected under either 35 U.S.C. § 102 or 103. For the reasons discussed below, Applicants respectfully submit that entry of the present *Amendment After Final* is appropriate, and that the claims as amended herein are patentable over the cited art. Accordingly, entry of the present *Amendment After Final* and issuance of a Notice of Allowance is requested in due course.

### **I. The Amendments to the Specification and Claims**

Applicants have cancelled independent Claims 1, 9, 15 and 21 and dependent Claims 13, 19 and 22-23. The cancellation of these claims is done without prejudice to pursuing these or similar claims in a continuation application. Applicants have rewritten Claims 2, 5, 10 and 16 into independent form, and have corrected typographical errors in Claims 2, 10 and 16. Finally, as suggested by the Examiner in the Final Action, Applicants have amended the specification to delete the phrase "transmission media" thereby obviating the pending rejections under 35 U.S.C. § 101.

### **II. Entry of the Present Amendment After Final is Appropriate**

Pursuant to MPEP § 714.12, amendments proffered after a final rejection may be entered where the "amendment . . . will place the application either in condition for allowance or in better form for appeal." In addition, amendments that comply "with objections or requirements as to form" and/or which cancel claims should be entered. Here, Applicants' claim amendments merely (1) cancel claims, (2) rewrite claims into independent form and (3) correct clear typographical errors. As such, entry of Applicants' claim amendments is appropriate.

### **III. The Rejections Under 35 U.S.C. § 101**

Claims 9 and 15 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter because the specification identifies "transmission media" as a possible computer useable storage medium, which the Office Action interprets as referring to an intangible medium. (Office Action at p. 2, ¶¶ 3-4). Applicants have cancelled Claims 9 and 15, thereby obviating the rejections under 35 U.S.C. § 101. However, in the event that the Examiner intended to apply the rejections under 35 U.S.C. § 101 to Claims 10-14 and/or Claims 16-20, in order to advance the prosecution of this case, Applicants have amended the specification to delete the reference to "transmission media", as suggested by the Examiner in the Final Action. (*See* Final Action at p. 2, ¶ 5 and p. 12, ¶ 38). Accordingly, the rejections under 35 U.S.C. § 101 have been fully addressed.

### **IV. The Rejections Under 35 U.S.C. § 102**

Claims 1-4, 9-12, 15-18 and 21-23 stand rejected as anticipated under 35 U.S.C. § 102 by the BEA Systems article. (Final Action at p. 3, ¶ 7). As noted above, Applicants have cancelled Claims 1, 9, 15 and 21-23. Applicants respectfully request reconsideration of the remaining rejections in light of the comments below.

#### **A. The Rejections of Independent Claims 2, 10 and 16**

Claim 2 stands rejected as anticipated under 35 U.S.C. § 102 by the BEA Systems article. (Final Action at p. 3, ¶ 9). The Final Action states that at page 4, paragraph 1, BEA Systems discloses storing EJBs in a collection registry upon passivation of a source EJB. The Final Action further states that the "collection registry" of original Claim 2 comprises a different collection registry than the "collection registry" of original Claim 1 because the references in original Claim 1 and original Claim 2 to the collection registry are both preceded by the word "a." Applicants respectfully request reconsideration of the rejection of Claim 2 for the following three independent reasons.

As an initial matter, Claim 2 has been amended to correct a clear typographical error, namely that the phrase "a collection registry" should read "the collection registry." Original

Claim 2 clearly further defined the last clause of original Claim 1, repeating the clause word-for-word and then indicating that the registering operation is done "in response to passivation of the source EJB." In rejecting original Claim 1, the Final Action identifies the cache of BEA Systems as the "collection registry", whereas in rejecting original Claim 2, the Final Action identifies a different disk storage drive in BEA Systems as comprising the "collection registry" of Claim 2. As such, the rejections of original Claims 1 and 2 are inconsistent. In sum, Claim 2 recites that the collection of target EJBs are registered in the collection registry "in response to passivation of the source EJB." As implicitly conceded in the Final Action (at page 12, ¶ 39), BEA Systems does not disclose obtaining and then registering a collection of target EJBs in a collection registry in response to the passivation of an associated source EJB. Accordingly, BEA Systems does not anticipate Claim 2.

Additionally, the portion of BEA Systems cited as disclosing the recitation of original Claim 2 merely recites that EJBs that are not currently in use, nor were recently in use, may be passivated by removing them from the cache and preserving them on a disk. (BEA Systems at pp. 3-4). Applicants respectfully submit even were it proper to consider the "collection registry" recitations of original Claims 1 and 2 to refer to separate registries – which it is not – the cited portion of BEA Systems still fail to disclose or suggest registering a collection of target EJBs in response to passivation of an associated source EJB as recited in original Claim 2. In fact, the cited portion of BEA Systems does not disclose or suggest that (1) a particular collection of target EJBs that are associated with a source EJB are what is "registered" to the disk (i.e., the alleged "collection registry") or (2) that the "registration" is performed "in response to passivation of the associated source EJB. BEA Systems is silent as to whether or not anything happens to such a collection of target EJBs upon passivation of a source EJB, and there is certainly no teaching or disclosure whatsoever in BEA Systems that a collection of target EJBs are registered in a collection registry upon passivation of an associated source EJB. Accordingly, the failure of BEA Systems to disclose these additional recitations of Claim 2 provides two additional independent grounds for reconsideration and withdrawal of the rejection of Claim 2.

Claim 16 is a computer program product claim counterpart to the method of Claim 2. Accordingly, the rejection of Claim 16 should be withdrawn for the same reasons that the rejection of Claim 2 should be withdrawn. Moreover, while system Claim 10 is not a direct analog to method Claim 2, the recitations of Claim 10 are sufficiently similar to the recitations of Claim 2 such that each of the above arguments as to why the rejection of Claim 2 should be reconsidered and withdrawn apply equally to the rejection of Claim 10.

B. The Rejections of the Dependent Claims

Each of the remaining claims depend upon one of Claims 2, 10 or 16. Accordingly, each of these claims are patentable for at least the reasons, discussed above, that the claim from which they depend is patentable over BEA Systems. In addition, Applicants respectfully submit that BEA Systems fails to disclose or suggest the recitations added by any of the dependent claims, and hence submit that each dependent claim is also independently patentable over the cited art.

For example, Claims 3 and 17 each recite "fetching the collection of target EJBs that are associated with the source EJB that is reactivated from the collection registry in response to traversing the one-to-many or many-to-many association of the source EJB that is reactivated." Claim 11 includes a similar recitation. As noted above, since the typographical error in Claims 2 and 16 have been corrected so that it is beyond dispute that the "collection registry" of original Claims 1 and 15 is the same collection registry referred to in original Claims 2/3 and 16/17, respectively, the rejections of Claims 3, 11 and 17 are internally inconsistent and unsupportable. Moreover, the rejections likewise assume that the "relationship caching" discussed in BEA Systems will also apply when EJBs are loaded from disk storage to the cache. (*See* Final Action at pp. 13-14, ¶ 45). Applicants respectfully submit that BEA Systems does not contain any disclosure that supports this assumption and, regardless, in order to support a rejection under 35 U.S.C. § 102 the reference must expressly or inherently (i.e., necessarily) disclose this recitation. The Final Action has not and cannot make such a showing. Accordingly, Applicants request reconsideration and withdrawal of the rejection of Claims 3, 11 and 17 for at least these reasons.

Claim 4 recites:

4. A method according to Claim 2 further comprising:

reactivating the source EJB;

fetching the collection of target EJBs that are associated with the source EJB that is reactivated from the collection registry if the collection of target EJBs that are associated with the source EJB is registered in the collection registry; and

materializing the collection of target EJBs that are associated with the source EJB that is reactivated from secondary storage if the collection of target EJBs that are associated with the source EJB is not registered in the collection registry.

Claims 12 and 18 include similar recitations. Applicants respectfully submit that the cited portions of BEA Systems fail to disclose or suggest the inventions of Claim 4, 12 and 18 for at least the following reasons.

The Final Action cites to page 3, Figure 4-2 of BEA Systems as disclosing "reactivating the source EJB" and to page 11, paragraph 7 through page 12, paragraph 3 of BEA Systems as disclosing "fetching the collection of target EJBs that are associated with a source EJB." What these cited portions of BEA Systems actually disclose is that (1) active EJBs are stored in a cache, (2) that EJBs may be passivated and moved out of the cache and (3) that related beans may be loaded into the cache in order to avoid multiple queries. In contrast, what the relevant clause of Claim 4 recites is "fetching the collection of target EJBs that are associated with a source EJB that is reactivated from the collection registry if the collection of target EJBs that are associated with the source EJB is registered in the collection registry." BEA Systems does not disclose that a collection of **target EJBs are fetched upon reactivation of a source EJB** – in fact, the portion of BEA Systems cited as disclosing this includes no discussion whatsoever of how reactivation of a source EJB effects, if at all, the described "relationship caching."

Applicants also submit that BEA Systems does not disclose or suggest the final recitation of Claim 4. Here, the Final Action argues that the relationship caching feature discussed at pages 11-12 of BEA Systems causes a collection of target EJBs to be loaded into memory when a source EJB is initially loaded into memory as described at page 3 of BEA Systems. Nothing in BEA Systems, however, supports this assertion, and BEA Systems clearly does not state that the relationship caching feature effects what occurs when a client initially connects to the server. More importantly, what Claim 4 recites is "fetching the collection of target EJBs that are associated with **a source EJB that is reactivated**." The initial loading of a source EJB into the

cache is not the reactivation of an EJB, but the initialization of the software. Accordingly, Applicants request reconsideration of the rejections of Claims 4, 12 and 18 for at least each of the above reasons.

### **III. The Rejections Under 35 U.S.C. § 103**

Claims 5-8, 13-15 and 19-20 stand rejected as obvious under 35 U.S.C. § 103 in light of BEA Systems in view of the Sun article. (Final Action at p. 7, ¶ 23). Applicants have cancelled Claims 13 and 19. Applicants respectfully traverse the rejections of the remaining claims.

As an initial matter, each of these rejections should be withdrawn for the same reasons that the rejections of the claims from which Claims 5-8, 14-15 and 20 depend should be withdrawn. In addition, the rejections under 35 U.S.C. § 103 should be withdrawn because Sun does not disclose the recitations of these claims.

In particular, with respect to Claim 5, the portion of the Final Action addressing similar language included in Claim 22 cites to Sun as disclosing that "the developer is responsible for specifying the relationships between EJBs . . . and that said relationships must be maintained using standard application programming interfaces." (Final Action at p. 8, ¶ 25). Based on this statement, the Final Action states that it would have been obvious to one of ordinary skill in the art "to use any means of maintaining the necessary relationships between the EJBs." (Final Action at p. 8, ¶ 26). This argument, however, fails to establish a *prima facie* rejection under 35 U.S.C. § 103. In order to establish such a *prima facie* case, the Examiner must show, among other things, that each recitation of the claims at issue are disclosed in one or more prior art references. The Final Action does not even attempt to argue that either of the cited references disclose managing the associations between a source EJB and a collection of target EJBs using a "link factory" as recited in Claim 5. Instead, the Final Action takes the position that Sun teaches that some sort of "means" for maintaining the relationships are required, and that the particular means recited in the claims is "irrelevant." However, under 35 U.S.C. § 103 the mechanism for managing the relationships specified by Applicants in the pending claims is not irrelevant, but is precisely what must be disclosed in the prior art. Thus, Applicants respectfully submit that as it

is undisputed that none of the cited references disclose the "link factory" recitations of Claim 5, the rejections of these claims should be withdrawn for this additional reason.

Furthermore, Applicants note that what Claim 5 recite is that the link factory "creat[es] the collection registry . . . in response to traversing the one-to-many or many-to-many associations of the source EJB." The Final Action takes the position that the cache of BEA Systems comprises the "collection registry." Accordingly, in order to reject Claim 5, the Final Action must show that the cache of BEA Systems is created, by a link factory, "in response to traversing the one-to-many or many-to-many associations of the source EJB." Once again, the Final Action does not even attempt to show that this is the case, and BEA Systems clearly does not include any such disclosure. Thus, this provides yet another reason for reconsideration and withdrawal of the rejection of Claim 5.

Applicants also request reconsideration of the rejection of Claims 6, 14 and 20 for the reasons discussed above with respect to Claim 5, and because the cited portions of BEA Systems and Sun fail to disclose the recitations added by each of Claims 6, 14 and 20.

#### IV. Conclusion

Applicants respectfully request that this application is in condition to pass to issue, which action is respectfully requested. Should the Examiner have any matters of outstanding resolution, he is encouraged to telephone the undersigned at 919-854-1400 for expeditious handling.

Respectfully submitted,



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